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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/219,747	12/23/1998	AKANE YOKOTA		4406

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EXAMINER	
TRAN, KHANH C	

ART UNIT	PAPER NUMBER
2631	

DATE MAILED: 02/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/219,747	YOKOTA ET AL.	
	Examiner	Art Unit	
	Khanh Tran	2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,14-17,19-27,40 and 53-70* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,14-17,19-27,40 and 53-70* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The Amendment filed on 11/17/2005 has been entered. Claims 1, 14-17, 19-27, 40 and 53-70 are pending in this Office action.

Response to Arguments

2. Response to Applicants' Remarks filed on 11/17/2005, record is made as described in Applicants Remarks. Because the Preliminary Amendment, which was contemporaneously filed with the CPA on 11/08/2002, was misplaced, the last Office action was issued based on incorrect claim set of the claimed invention. It has been agreed upon during a telephone interview between the undersigned applicants' attorney and the Examiner on 11/16/2005 that a new non-final Office Action is issued on the claims pending as a result of the Preliminary Amendment (filed on 11/08/2002). The period for filing a response to the new Office Action will be set to start on the mailing date of the new Office Action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 14-16, 20-23, 25, 27, 40, 54-56, 59, 62, 66-67 and 69 are rejected under 35 U.S.C. 102(b) as being anticipated by Cadd et al. U.S Patent 5,691,979.

Regarding claim 1, in column 2 lines 25-50, referring to figure 1, a target station 11 is defined as a station which *has been solicited by an initiating station 11' to begin communication*. The talk groups 13 *are configured* prior to communication and are fixed until re-configured by assigning a unique group identification (ID) to each talk group 13.

In column 2 lines 50-60, each station 11 in a talk group 13 communicates using a protocol, which supports slow frequency hopping. In column 3 lines 1-15, during operation, all stations 11 in each talk group 13 listen on their assigned ACK channel 101 for that group. Each station 11 may sense a request, in the form of a group ID, from others within their talk group 13 in order to initiate communication.

Regarding claim 14, claim 14 is rejected on the same ground as for claim 1 because of similar scope.

Regarding claim 15, as recited in claim 1, each station 11 may sense a request, in the form of a group ID, from others within their talk group 13 in order to initiate communication. In view of that, communication performs multi-address calling in the group by using a group ID.

Regarding claim 16, referring to figure 1, Cadd et al. discloses the talk groups 13 are configured prior to communication and are fixed until re-configured by assigning a unique group identification (ID) to each talk group 13. In view of the foregoing disclosure, the communication system 10 includes a communication control apparatus for assigning the group identification information.

Regarding claim 20, Cadd et al. teachings perform radio communication.

Regarding claim 21, in column 2 lines 50-60, Cadd et al. teaches that each station 11 in a talk group 13 communicates using a protocol which supports slow frequency hopping.

Regarding claim 22, in column 3 lines 25-45, Cadd et al. teaches that after the talk group 13 has resolved a communication channel 105, all members of the talk group 13 will switch to that communications channel 105 and begin communication using a slow frequency hopping protocol over the sequence of communication channels. As seen in FIG. 2, the talk group 13 can use available L hopping sequences. Each of the L hopping sequences are composed of K communication channels in the set where L and K represent integers greater than 1. In view of that, the sequence of communication channels for the frequency-hopping pattern is assigned to the talk group 13 after the talk group 13 resolved a communication channel 105.

Regarding claim 23, as recited in claim 22, all members of the talk group 13 will switch to that communications channel 105 and begin communication using a slow frequency hopping protocol over the sequence of communication channels in synchronism.

Regarding claim 25, in column 8 lines 5-30, the method utilizes a signaling protocol using a plurality of frames, which are transmitted between an initiating station and at least one non-initiating station. Hence, the information transmission right is assigned to the initiating station in accordance with a time during which one communication frame is communicated.

Regarding claim 27, claim 27 is rejected on the same ground as for claim 1 because of similar scope.

Regarding claim 40, claim 40 is rejected on the same ground as for claim 1 because of similar scope.

Regarding claim 54, claim 54 is rejected on the same ground as for claim 1 because of similar scope.

Regarding claim 55, claim 55 is rejected on the same ground as for claim 1 because of similar scope. Furthermore, each station 11 stores the unique ID, which is

assigned at the time of configuration. Because the station 11 is a mobile unit as shown in figure 1, the station 11 inherently has a storage means for storing the unique ID.

Regarding claim 56, claim 56 is rejected on the same ground as for claim 55 because of similar scope.

Regarding claim 59, as recited in claim 1, a target station 11 is defined as a station which *has been solicited by an initiating station 11' to begin communication*.

Regarding claim 62, claim 62 is rejected on the same ground as for claim 56 because of similar scope.

Regarding claim 66, the station 11 inherently includes a receiving means for receiving group ID information.

Regarding claim 67, referring to figure 1, the initiating station 11' is connected to target stations 11.

Regarding claim 69, claim 69 is rejected on the same ground as for claim 56 because of similar scope.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 17, 19, 24, 26, 53, 57-58, 60-61, 63-65, 68 and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cadd et al. U.S Patent 5,691,979.

Regarding to claim 17, Cadd et al. does not expressly teach the apparatus inquires of other communication apparatus as set forth in the application claim.

Nevertheless, as recited in claim 1, Cadd et al. teaches that a target station 11 is defined as a station which *has been solicited by an initiating station 11' to begin communication* and the talk groups 13 *are configured* prior to communication. Because an initiating station 11' solicits communication other target station 11, one of ordinary skill in the art would have recognized that the act of soliciting corresponds to inquiring as claimed and the "talk groups 13 being configured prior to communication" corresponds to assigning the group ID information as claimed in the application claim.

Regarding claim 19, because Cadd et al. teaches that the talk groups 13 *are configured* prior to communication and are fixed until re-configured by assigning a unique group identification (ID) to each talk group 13, it would have been obvious for one of ordinary skill in the art at the time the invention was made that Cadd et al. can be

modified so that after group communication complete, the talk group 13 releases the assigned group identification.

Regarding to claim 24, in column 3 lines 35-50, as seen in FIG. 2, L hopping sequences are available, which can be used by the talk group 13. Each of the L hopping sequences are composed of K communication channels in the set where L and K represent integers greater than 1. To avoid collision in case of simultaneous transmission, it would have been obvious for one of ordinary skill in the art at the time the invention was made that Cadd et al. teachings can be modified so that each station 11 can be assigned a hopping sequence.

Regarding to claim 26, Cadd et al. does not teach the group communication is performed on the basis of accounting information.

In column 2 lines 45-55, because Cadd et al. suggests the utility of radio links established can include both digital voice and data communication, therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made that Cadd et al. teachings can be modified so that the group communication is performed on the basis of accounting information.

Regarding claim 53, claim 53 is rejected on the same ground as for claim 1 because of similar scope. Furthermore, Cadd et al. does not teach a computer program product as set forth in the claimed application. Nevertheless, with the advance of

computer technology and computer programming, a person of an average skill in the art would have been motivated to implement a computer program product as set forth in the application claim. Motivation for implementing on computer program code is for simulation and automation.

Regarding claim 57, as seen in FIG. 1, each talk group 13 operates in an infrastructureless environment without the benefit of any centralized control. In view of that, it would have been obvious for one of ordinary skill in the art at the time the invention was made that Cadd et al. teachings can be modified such that any station 11 could perform a management of the group communication.

Regarding claim 58, since any station 11 could perform a management of the group communication as recited in claim 57, it would have been obvious for one of ordinary skill in the art at the time the invention was made that Cadd et al. teachings can be modified such that the station 11 can transfer the management to another station 11.

Regarding claim 60, because the talk groups 13 *are configured* prior to communication and are fixed until *re-configured by assigning a unique group identification (ID)* to each talk group 13, it would have been obvious for one of ordinary skill in the art at the time the invention was made that Cadd et al. teachings can be modified such that one specific station informs other stations 11 the identification information.

Regarding claim 61, claim 61 is rejected on the same ground as for claim 60 because of similar scope.

Regarding claim 63, claim 63 is rejected on the same ground as for claim 57 because of similar scope.

Regarding claim 64, claim 64 is rejected on the same ground as for claim 58 because of similar scope.

Regarding claim 65, claim 65 is rejected on the same ground as for claim 60 because of similar scope.

Regarding claim 68, claim 68 is rejected on the same ground as for claim 56 because of similar scope. Furthermore, because the talk group 13 is configured, it would have been obvious for one of ordinary skill in the art at the time the invention was made that Cadd et al. teachings can be modified such that station 11 can include a decision means for deciding ID information as set forth in the application claim.

Regarding claim 70, claim 70 is rejected on the same ground as for claim 68 because of similar scope.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Tran whose telephone number is 571-272-3007. The examiner can normally be reached on Monday - Friday from 08:00 AM - 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KCT

Khanh Cong Tran 02/03/2006

Examiner KHANH TRAN